## REMARKS

This is in full and timely response to the Office Action dated September 20, 2005.

Because February 20, 2006, five months after the mailing date of the Office Action, falls on a Federal holiday in the District of Columbia, the period for response is extended to February 21, 2006, which is the next day that is neither a Saturday, Sunday nor a Federal holiday in the District of Columbia.

Reexamination in light of the following remarks is respectfully requested.

Claims 1-3 and 8-22 are currently pending in this application, with claims 1 and 9 being independent.

*No new matter has been added.*

**Claim objection**

Paragraph 1 of the Office Action includes an objection to claim 8.

This objection is traversed at least for the following reasons.

While not conceding the propriety of this objection and in order to advance the prosecution of the above-identified application, the features of claim 7 have been wholly incorporated into claim 1 to form amended claim 1. Thus, prior claim 7 is now amended claim 1.

Withdrawal of this objection and allowance of the claims is respectfully requested.

**Rejections under 35 U.S.C. §112**

Paragraph 3 of the Office Action includes a rejection of claims 1-3 and 7 under 35 U.S.C. §112, second paragraph.

This rejection is traversed at least for the following reasons.

While not conceding the propriety of this rejection and in order to advance the prosecution of the above-identified application, the features of claim 7 have been wholly incorporated into claim 1 to form amended claim 1. Thus, prior claim 7 is now amended claim 1.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

**Rejections under 35 U.S.C. §102 and 35 U.S.C. §103**

Paragraph 5 of the Office Action includes a rejection of claims 1 and 8 under 35 U.S.C. §102 as allegedly being anticipated by U.S. Patent No. 3,085,615 to Sanderson or, alternatively, U.S. Patent No. 4,153,095 to Sarkissian (Sarkissian '095) or U.S. Patent No. 4,262,724 to Sarkissian (Sarkissian '724) or U.S. Patent No. 5,115,852 to De Lorean.

This rejection is traversed at least for the following reasons.

While not conceding the propriety of these rejections and in order to advance the prosecution of the above-identified application, the features of claim 7 have been wholly incorporated into claim 1 to form amended claim 1. Thus, prior claim 7 is now amended claim 1.

**Sanderson** - Sanderson arguably teaches a flat tire warning system having a tire 1, a tube 18, and a rim 2 (Sanderson at Figure 4). Sanderson arguably teaches an outer sectional area of the tube 18 being nonuniform in a tire circumferential direction (Sanderson at Figure 3, column 3, lines 30-35).

However, Sanderson is silent as to a sectional area changing rate of the closed space by the tube 18 being 5.0% or higher.

The Final Office Action of September 20, 2005 refers to the prior Office Action of April 6, 2005 for its reasoning in the continued rejection of the claims. The Office Action of April 6, 2005 contends that the skilled artisan would expect the difference in cross-sectional area to fall within the broadly claimed range of at least 5.0% in order to fulfill its function of creating sufficient vibration to be readily detected by the driver (Office Action of April 6, 2005 at page 2).

In response, this contention is conclusory and is not based upon any objective teaching found within Sanderson. As noted hereinabove, the Examiner must provide rationale or evidence tending to show inherency. M.P.E.P. §2112(IV). In particular, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Since the Final Office Action fails to provide any objective evidence to show that Sanderson would necessarily possess the characteristics of the claimed invention, the Final Office Action has failed to show that all claimed features are found within Sanderson.

**Sarkissian '095** - Sarkissian '095 arguably teaches a pneumatic tire having a pneumatic safety insert with beads having a tire 12, an insert member 14, and a rim 16 (Sarkissian '095 at Figure 1).

The Final Office Action of September 20, 2005 refers to the prior Office Action of April 6, 2005 for its reasoning in the continued rejection of the claims. The Office Action of April 6, 2005 refers to Figure 25 of Sarkissian '095 (Office Action of April 6, 2005 at page 2). In this regard, Sarkissian '095 arguably teaches that one way of notifying a driver of a flat tire is to fashion an out of round condition 140 into the insert crown 48 at a predetermined location as shown in Figure 25 (Sarkissian '095 at column 14, lines 38-40).

However, Sarkissian '095 is silent as to a sectional area changing rate of the closed space by the insert member 14 being 5.0% or higher.

The Office Action contends that the skilled artisan would expect the difference in cross-sectional area to fall within the broadly claimed range of at least 5.0% in order to fulfill its function of creating sufficient vibration to be readily detected by the driver (Office Action of April 6, 2005 at page 2).

In response, this contention is conclusory and is not based upon any objective teaching found within Sarkissian '095. As noted hereinabove, the *Examiner* must provide rationale or evidence tending to show inherency. M.P.E.P. §2112(IV). In particular, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Since the Final Office Action fails to provide any objective evidence to show that Sarkissian '095 would necessarily possess the characteristics of the claimed invention, the Final Office Action has failed to show that all claimed features are found within Sarkissian '095.

**Sarkissian '724** arguably teaches a pneumatic tire having a pneumatic safety insert with beads having a tire 12, an insert member 14, and a rim 16 (Sarkissian '724 at Figure 1).

Sarkissian '724 arguably teaches an outer sectional area of the insert member 14 being nonuniform in a tire circumferential direction (Sarkissian '724 at Figures 6-7). In this regard, Sarkissian '724 arguably teaches the magnitude of the R1 and R2 sections of the insert 14 (Sarkissian '724 at column 8, lines 6-8). Within the table of Sarkissian '724, at column 8, line 51 to column 9, line 11, reference (b) refers to the corresponding circumferential proportion of each ply section (Sarkissian '724 at column 9, line 11).

However Sarkissian '724 is silent as to a sectional area *changing rate* of the closed space by the insert member 14 being 5.0% or higher.

The Final Office Action of September 20, 2005 refers to the prior Office Action of April 6, 2005 for its reasoning in the continued rejection of the claims. The Office Action of

April 6, 2005 contends that the skilled artisan would expect the difference in cross-sectional area to fall within the broadly claimed range of at least 5.0% in order to fulfill its function of creating sufficient vibration to be readily detected by the driver (Office Action of April 6, 2005 at page 3).

In response, this contention is conclusory and is not based upon any objective teaching found within Sarkissian '724. As noted hereinabove, the Examiner must provide rationale or evidence tending to show inherency. M.P.E.P. §2112(IV). In particular, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Since the Final Office Action fails to provide any objective evidence to show that Sarkissian '724 would necessarily possess the characteristics of the claimed invention, the Final Office Action has failed to show that all claimed features are found within Sarkissian '724.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Paragraph 6 of the Office Action includes a rejection of claims 1, 7 and 8 under 35 U.S.C. §102 as allegedly being anticipated by German Patent Application No. DE 100 51 735 to Warmbier.

This rejection is traversed at least for the following reasons.

**Claim 1**- Claim 1 is drawn to a tire/wheel assembly, comprising:

an annular tube arranged in a closed space formed between a pneumatic tire and a wheel, an outer sectional area of the tube being nonuniform in a tire circumferential direction,

wherein a sectional area changing rate of the closed space by the tube is between 5.0% and 25%.

**Warmbier** arguably teaches a tire tube 3 inside a tire 2 (Warmbier at Figures 1-2, Abstract). Warmbier may arguably teach an outer sectional area of the tire tube 3 being nonuniform in a tire circumferential direction (Warmbier at Figures 2-3).

However Warmbier is silent as to a sectional area *changing rate* of the closed space by the tube as being between 5.0% and 25%.

The Final Office Action of September 20, 2005 refers to the prior Office Action of April 6, 2005 for its reasoning in the continued rejection of the claims.

Moreover, the Final Office Action contends that the skilled artisan would expect the difference in cross-sectional area to fall within the broadly claimed range of at least 5.0% in order to fulfill its function of creating sufficient vibration to be readily detected by the driver (Final Office Action of September 20, 2005 at page 3).

In response, these contentions are conclusory and are not based upon any objective teaching found within Warmbier. As noted hereinabove, the Examiner must provide rationale or evidence tending to show inherency. M.P.E.P. §2112(IV). In particular, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Since the Final Office Action fails to provide any objective evidence to show that Warmbier would necessarily possess the characteristics of the claimed invention, the Final Office Action has failed to show that all claimed features are found within Warmbier.

The Final Office Action of September 20, 2005 contends that the close correspondence of structure and function (reducing resonance inside the tire) between the claimed tire/wheel assembly and the reference tire/wheel assembly provides a reasonable basis for the examiner to infer that the reference tire/wheel assembly also meets the claimed tube cross-sectional area change of at least 5.0%; burden thus shifts to the applicants to show otherwise as noted above (Final Office Action of September 20, 2005 at page 3).

In response, paragraph [0017] of the specification as originally filed provides that:

It is preferred that a sectional area changing rate of the closed space 4 by the tube 5 be set to 5.0% or higher. When this sectional area changing rate is lower than 5.0%, a reduction effect of air column resonance sound becomes unsatisfactory. There is no particular limitation on an upper value of the sectional area changing rate. However, an upper limit is preferably set to 25% because an excessively large rate leads to deterioration of uniformity.

Withdrawal of these rejections and allowance of the claims is respectfully requested.

Paragraph 8 of the Office Action includes a rejection of claims 2 and 3 under 35 U.S.C. §103 as allegedly being obvious over Sanderson or, alternatively, Sarkissian '095 or Sarkissian '724 or De Lorean or Warmbier, in view of U.S. Patent No. 5,385,191 to Aflague et al. (Aflague).

This rejection is traversed at least for the following reasons.

While not conceding the propriety of these rejections and in order to advance the prosecution of the above-identified application, the features of claim 7 have been wholly incorporated into claim 1 to form amended claim 1. Thus, prior claim 7 is now amended claim 1.

Sanderson, Sarkissian '095, Sarkissian '724, and Warmbier, either individually, fail to disclose, teach, or suggest all claimed features at least for the reasons provided hereinabove.

**De Lorean** - De Lorean arguably teaches a closed-torus tire having a tire 22, an inner wall 24, and a rim 44 (De Lorean at Figure 4).

De Lorean arguably teaches an outer sectional area of the inner wall 24 being nonuniform in a tire circumferential direction (De Lorean at Figures 2-3), and arguably teaches an outer annular chamber 40 and an inner annular chamber 42 (De Lorean at Figure 6, column 4, lines 64-65).

De Lorean additionally provides that mold member 20 has a radial width dimension W varying in a circumferential direction C between a maximum value Mx and a minimum value Mn (De Lorean at Figure 2, column 4, lines 35-38).

However De Lorean is silent as to a sectional area *changing rate* of the closed space by the tube as being between 5.0% and 25%.

The Final Office Action of September 20, 2005 refers to the prior Office Action of April 6, 2005 for its reasoning in the continued rejection of the claims. The Office Action of April 6, 2005 contends that the skilled artisan would expect the difference in cross-sectional area to fall within the broadly claimed range of at least 5.0% in order to fulfill its function of creating sufficient vibration to be readily detected by the driver (Office Action of April 6, 2005 at page 3).

In response, this contention is conclusory and is not based upon any objective teaching found within De Lorean. As noted hereinabove, the *Examiner* must provide rationale or evidence tending to show inherency. M.P.E.P. §2112(IV). In particular, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Since the Final Office Action fails to provide any objective evidence to show that De Lorean would necessarily possess the characteristics of the claimed invention, the Final Office Action has failed to show that all claimed features are found within De Lorean.

**Aflague** - Aflague arguably teaches a tire casing 3 and a binary inner tube (Aflague at Figures 1-2, 4-5 and 7).

Figure arguably shows a cross-section of a deflated inner tube 1 inside a tire casing 3 (Aflague at column 3, lines 20-22).

Figure 2 arguably shows a cross-section of the first embodiment of the present invention having two discrete compartments, a primary compartment 10 and a secondary compartment 20 (Aflague at column 3, lines 22-25).

Figure 4 of Aflague arguably shows a cross-sectional view of the first embodiment of the binary inner tube 1 within a tire casing 3 after the secondary compartment 20 has been inflated because the primary compartment 10 has been deflated, due to damage by puncture, tear in the sidewall, or other means (Aflague at column 3, lines 63-67).

However, Aflague fails to disclose, teach or suggest an outer sectional area of the binary inner tube being nonuniform in a tire circumferential direction (Aflague at Figures 1-2, 4-5). Moreover, Aflague is silent as to a sectional area *changing rate* of the closed space by the tube as being between 5.0% and 25%.

The Final Office Action of September 20, 2005 refers to the prior Office Action of April 6, 2005 for its reasoning in the continued rejection of the claims. The Office Action of April 6, 2005 contends that the skilled artisan would expect the difference in cross-sectional area to fall within the broadly claimed range of at least 5.0% in order to fulfill its function of creating sufficient vibration to be readily detected by the driver (Office Action of April 6, 2005 at page 3).

In response, this contention is conclusory and is not based upon any objective teaching found within Aflague. As noted hereinabove, the *Examiner* must provide rationale or evidence tending to show inherency. M.P.E.P. §2112(IV). In particular, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Since the Final Office Action fails to provide any objective evidence to show that Aflague would necessarily possess the characteristics of the claimed invention, the Final Office Action has failed to show that all claimed features are found within Aflague.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

**Newly added claims**

Claims 10-22 are dependent upon claim 9.

Claim 9 is drawn to a tire/wheel assembly, comprising:

an annular tube between a pneumatic tire and a wheel, the pneumatic tire fixed to the wheel defining a closed space,

wherein the annular tube arranged is in a portion of the closed space, a remaining portion of the closed space being absent the annual tube, and

wherein an outer sectional area of the annular tube is nonuniform in a tire circumferential direction, the remaining portion of the closed space varying by a sectional area changing rate of between 5.0% and 25%.

However, *an outer sectional area of the annular tube is nonuniform in a tire circumferential direction, the remaining portion of the closed space varying by a sectional area changing rate of between 5.0% and 25%* is absent from the cited prior art.

Allowance of the claims is respectfully requested.

**Conclusion**

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the amendments and remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

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Respectfully submitted,

By_____

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